CITY OF LODI

AGENDA TITLE: Purchase of Computer Workstations and Software

MEETING DATE: December 4, 1991

PREPARED BY: Finance Director and Personnel Director

RECOMMENDED ACTION: That the City Council authorize **Staff** to purchase computer workstations, printers and software for the Finance Department **and** Personnel Department at **a** cost not to exceed $25,000 and to authorize the City Manager to redirecte **hire** freeze savings of the Finance Department to purchase equipment and services that improve the efficiency and reduce the operating cost of the Finance and Personnel Departments.

BACKGROUND INFORMATION: In August **1991** the City Council was informed that Staff would not fill a vacant position in the Finance Department for up to two years at **a** salary savings **of** $42,700 per year with the intent of using this savings **to** purchase equipment **and** services to improve the efficiency of the Finance Department and further reduce the operating costs **of** the Department.

Based on the tentative approval of the City Manager, the Finance Director contracted with a consultant in September **1991 to** assist Staff in evaluating computer workstations, printers, and software and in determining what equipment could be purchased at the lowest price and meet performance standards set by the Finance Director **and** Personnel Director. The consulting firm selected by the Finance Director **to** assist in this effort **is** the Morada Corporation, a computer consulting corporation located in Lodi.

On November **12, 1991,** Erick Hodel from Morada Corporation met with **Staff** representatives from the Finance Department, Personnel Department, Public Works and Administration **and** recommended the equipment listed in Exhibit A. The equipment manufacturer recommended by Morada Corporation to provide work stations is HIQ based on their price and ability to service their equipment locally. The cost of **a** PC 386X-25 MHZ manufactured by HIQ is **$1,333. A** comparable work station available through IBM **costs** approximately $6,800 and from Hewlett Packard, $7,300. Other manufactures **of IBM** clones **can** provide similar equipment at less cost less, approximately $200, however, they do not have a local maintenance service.

APPROVED: _____
THOMAS A. PETERSON
City Manager

CC-1

Morada Corporation recommended the purchase of HP Lazer Jet Printers based on their reliability, speed and reputation in the industry. Other purchases recommended included the equipment needed to convert existing equipment to current standards, to allow printer sharing, to allow staff to use the new work stations as terminals to the AS400, and software necessary to operate this equipment. The software recommended is standard software (Lotus and Word Perfect) universally used in Finance and Personnel Office operations.

The consensus from the meeting of November 12, 1991 was that Staff should purchase the equipment and software recommended by Morada Corporation.

FUNDING

The purchase of the equipment recommended in Exhibit A for the Finance Department and Personnel Department will be funded with savings from the hiring freeze in the Finance Department.

H. D. Flynn
Finance Director

RECOMMENDED EQUIPMENT LIST

NR	ITEM	COST
8	PC386SX–25 MHZ @ $1,333 each	6,665
9	Emulation cards	1,791
1	Emulation card for a PSI2	470
1	2MB of additional memory for a PS/2	400
1	MS DOS	150
8	Word Perfect 5.1 @ $239 each	1,912
8	LOTUS 123 @ $399 each	3,192
2	HP Lazer Jet III -	3,200
1	HP Lazer Jet IIID	2,500
1	Print Sharing Device	800
	Cabling	1,200
	TOTAL	22,280

CITY OF LODI

COUNCIL COMMUNICATION

AGENDA TITLE:	**Purchase of Computer Workstations and Software**
MEETING DATE:	December 4, 1991
PREPARED BY:	Finance Director and Personnel Director

RECOMMENDED ACTION: That the **City** Council authorize Staff **to** purchzse computer workstations, printers and software for the Finance Department and Personnel Department at a cost not to exceed $26.500 and to authorize the **City** Manager to redirecte hire freeze savings **of** the Finance Department to purchase equipment and services that improve the efficiency and reduce the operating cost of the Finance and Personnel Departments.

BACKGROUND INFORMATION: In August 1991 the City Council was informed that Staff would not fill **a** vacant position in the Finance Department for up to two years at a *salary* savings of $42,700 per year with the intent of using this savings to purchase equipment and services to improve the efficiency of the Finance Department and further reduce the operating costs **of** the Department.

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Morada Corporation recommended the purchase of HP Lazer Jet Printers based on their reliability, speed and reputation in the industry. Other purchases recommended included the equipment needed to convert existing equipment to current standards, to allow printer sharing, to allow staff to use the new work stations as terminals to the AS400, and software necessary to operate this equipment. The software recommended is standard software (Lotus and Word Perfect) universally used in Finance and Personnel **Office** operations.

The consensus from **the meeting of November 12,** 1991 **was** that Staff should purchase the equipment and software recommended by Morada Corporation.

FUNDING

The purchase of **the** equipment recommended in Exhibit A for the **Finance** Department and Personnel Department **will** be funded with savings from the hiring freeze in the **Finance** Department.

RECOMMENDED EQUIPMENT LIST   EXHIBIT A

NR	ITEM	COST
8	PC386SX – 25 MHZ @ $1,333 each	10,664
9	Emulation cards	1,791
1	Emutation card for a PS/2	470
1	2MB of additional memory for a PS/2	400
1	MS DOS	150
8	Word Perfect 5.1 @ $239 each	1,912
8	LOTUS 123 @ $399 each	3,192
2	HP Lazer Jet III	3,200
1	HP Lazer Jet IIID	2,500
1	Print Sharing Device	800
	Cabling	1,200
	TOTAL	26,279

PC RECOMMENDATIONS

for the

Finance Department

City of Lodi

Presented by

The MORADA Corporation

November 8,1991

Table of Contents

Background

Goals

The MORADA Corporation was contracted to conduct a study for the City of Lodi to determine the best approach for installing several PCs in the Finance Department. Once the needs are determined, recommendations and the configuration for each PC are to be provided to the City, and the City's purchasing department will proceed with the actual purchase of the items.

This document is providing MORADA's recommendations and configurations.

The Goals of the study are as **follows:**

1. Provide the economical power of PCs to Finance Department staff.

2. Configure the PCs to allow maximum performance for the least cost. This will include the use **of Word** Perfii (PC word Processor) and Lotus 1-2-3 (PC spreadsheet program).

3. Allow multiple PCs to share two laser printers in the most economical and practical manner.

Current Situation

The City of Lodi currently has an **IBM AS/400 and all** Financial staff have "dumb" terminals which are attached to the AS/400. These terminals allow access to several Financial systems including Utility Billing, a capability that must be retained. In addition, some word processing is done using IBM OfficeVision and an AS/400 spreadsheet package is used for limited spreadsheet work.

Methodology

The methodolgy used to amve at the recommendations is as follows:

1. City staff was interviewed to determine the Department's needs, as well as any problem areas which may develop as a result of the change to using PCs. Problem areas discussed included what products were needed, interfacing issues to the AS/400, possible training issues, possible cabling problems, etc.

2. The information gathered was compiled and summarized.

3. MORADA then performed tests to determine the seventy of AS/400 interfacing issues, the best approach to be taken in sharing the two laser printers, and the best configuration approaches to reduce problems of performance and functionality.

4. This "PC Recommendations" report was created and presented to the City.

Initial Requirements

The following were the requirements as initially defined by the City:

Finance Department:

>   1 PC for Dixon Flynn
>   1 PC for **Diana** White/Messing
>   1 PC for Sandy Smith
>   **1** PC for **Myrna** Cooper
>   1 PC for **Maxine** Cadwallader
>   Upgrade Vicki McAthie's **PS/2** Model 55SX to work with the **AS/400**

During the research process, the following were added to the list of persons that are to gain access to **PCs**:

Finance Department:

>   1 PC for Ruby Paiste
>   1 PC for *Cory* Wadlow

Personnel Department:

>   **1 PC** for Joanne **Narloch**
>   1 PC for Marlin Robbins
>   1 PC for **Lisa** Achen

Two **laser** printers **are** to be shared by the Finance Department **staff.** A **third** printer is necessary for the Personnel department.

Each PC must have word processing (WordPerfect) and spreadsheet capability (Lotus 1-2-3). **A** major objective was the ability to use **IBM** Query to access **data** files and **download** information to the PC **spreadsheet** program **for** analysis **and reporting.**

Recommendations

Finance Department

The **following** is *the* recommendation **by MORADA** Corporation **to the City of** Lodi **for the** purchase of PCs, printers, **and** emulation **cards for the** Finance **Department. A total of 7 PCs and 2 printers** are **recommended, and an** upgrade **for one** existing IBM PS/2.

Printer sharing will be accomplished through the AS/400 PC/Support **product.**

A - All PCs purchased must have **the following minimum configuration (additional specifics for individuals** will **be listed in Section 1B):**

4 MB RAM
100 MB hard disk
VGA monitor and card
Key Tronic 101 key keyboard
ISA bus
3 1/2" HD diskette drive
5 1/4" HD diskette drive
1 parallel, **2 serial** ports
220 Watt power supply
MS-DOS 5.0
5250 emulation card

Additional Requirements:

In addition, the following items represent critical issues that *can* affect future servicing or upgrading of the systems. MORADA recommends that these items be taken into consideration when purchasing the PCs.

>   The serial and parallel ports should not be part of the motherboard.
> -   The memory should be 1MB modules, and be upgradeable to at least 8MB.
> -   The system should have a minimum of 8 expansion slots, with at least 5 of **those being** 16 bit, and at least **5** unused.
> -   Service should be available within a reasonable distance from the City of **Lodi.**
> -   Obtain a guarantee of IBM compatibility from the vendor.
> -   Obtain references **and** contact them before purchasing.

MORADA Corporation **has** performed extensive testing of compatibility to the AS/400 with HiQuality computers. In addition, we have several of them in our office **and** they have **performed** well. **As** a result of our testing, the fact that we have **used** them for several years, and San Joaquin County is using them extensively, **MQRADA** Corporation recommends that the City **purchase Hi** Quality computers.

We recognize that many other PCs are on the market that can do the job as well as the HiQuality products, but, for the above **reasons,** we must recommend the HiQuality products. This is especially true with **service** in Stockton.

In addition, we have performed tests using Micro Integration's IBM Compatible Twinax Card which lists for only $395 (currently available for **$199**) and have determined *that* they perform very well. Although there are many manufacturers of 5250 emulation cards, as a result of **our** personal testing (combined with the reasonable price) we recommend the MI card. No **software** is required when **used** with AS/400 PC/Support emulation software. Mike Davis is the California representative. He can be reached at 1-800-832-4526.

B - **Additional configuration requirements and location of equipment by individual are as follows:**

Dixon Flynn
 486-33 MHZ with 64k **cache**
 Desk top *case*
 Location: **Northeast corner of** office

Diana White/Messing
 386SX-25 MHZ
 Desk top case
 Location: **Northwest corner of** office

Sandy **Smith**
 386SX-25 MHZ
 Mini tower *case*
 Location: Replace current AS/400 terminal

Myrna **Cooper**
 386SX-25 MHZ
 Mini tower case
 Location: Replace current AS/400 terminal

Maxine Cadwallader
 386SX-25 MHZ
 Desk, **top** *case*
 Location: Replace current AS/400 terminal

Vicki McAthie
 386SX-25 MHZ
 Desk top *case*
 Location: Replace current AS/400 terminal

Cory Wadlow
 386SX-25 MHZ
 Desk top *case*
 Location: **Replace current AS/400 terminal**

C - Ruby Paiste

In addition to the 7 PCs t be purchased, Ruby will se the PS/2 Model 55SX which Vicki McAthie currently uses. It must be **upgraded** with *a* 5250 Emulator card, 2 additional MB **of** memory, and IBM DOS 5.0.

1   IBM 5250 emulator card for PS/2 Model 55SX
1   2 MB additional memory
1   **Upgrade** the current IBM **DOS 3.3** *to* 5.0

Since this is for an **IBM PS/2** with micro channel, we recommend purchasing the emulator **card from** IBM. **The** additional memory may be purchased from any reputable dealer (must specify PS/2 Model 55SX).

D - Printers

The **printers recommended** are Hewlett Packard Laser Jets. Other manufacturers have laser printers which perform very well, but in almost every *case*, the other **printer** emulates the **HP** Laser Jet series. After market products such as **font cartridges** are not always available for these other printers. **Such** upgrades are easily found for HP's Laser Jets.

I   Hewlett Packard Laser **Jet** III
     8PPM, single 250 sheet paper **tray**
     Location: In Vicki McAthie's office where Ruby is currently located.

1   Hewlett Packard Laser Jet IIID
     8PPM, 2 paper trays **of** 250 sheets each
     Location: In Dixon Flynn's office immediately next to door.

The IBM ProPrinter currently **used** by Vicki will be relocated to the basement for use by Ruby or *Cory*.

E - The **IBM** 5219 in the basement should be relocated. This **will allow** Ruby Paiste to relocate downstairs, **leaving** sufficient room for one Laser Jet **printer in** Vicki's office.

Personnel Department

The following represents the recommendation by MORADA Corporation to the City of Lodi for the purchase of PCs, a printer, and emulation cards for use by the Personnel Department. A total of 3 PCs and 1 Hewlett Packard Laser Jet printer is recommended.

The PCs will provide the Personnel staff with **economical** applications to perform many **of** their daily routines. However, although **these** recommendations do oot address software needs beyond word processing and **spreadsheets,** caution must be exercised when purchasing Personnel specific PC software.

All **such** purchases should **be** reviewed by **the** committee recently formed for the **purpose** of evaluating Payroll / Personnel applications for the **AS/400** to prevent duplication **of** function, needless cost, **and** to maintain the total functionality of the AS/400 **system** selected **and** the City's data processing function as a whole.

Printer **sharing** will be accomplished through the recommended Printer Sharing device.

> **A** - All PCs purchased must have the following minimum configuration:
>
> **4 MB** RAM
> **VGA** monitor **and card**
> Key Tronic 101 key keyboard
> **ISA bus**
> **3 1/2" HD** diskette drive
> **5 1/4" HD** diskette drive
> 1 parallel, 2 **serial** ports
> 220 Watt power supply
> **MS-DOS 5.0**
> 5250 emulation card
>
> **"Additional Requirements"** as presented for the **Finance** Department apply here also.

B - The recommended location of the PCs for the Personnel Department are as follows:

Joanne Narloch
  386SX - *25* **MHZ**
  100 MB hard **disk**
  Desk top case
  Location: South wall of office
      NOTE: Before Joanne's system can communicate with the AS/400 as a terminal, additional twinax cabling must be done.

Marlin Robbins
  386SX - 25 **MHZ**
  100 **MB** hard disk
  Mini tower case
  Location: Replace current AS/400 terminal

Lisa Achen
  386SX - **16** MHZ
  80 MB hard disk
  Desk **top** case
  Location: Replace current AS/400 terminal

C - Printer

  1   Hewlett Packard Laser Jet **IIID**
      8PPM, 2 paper trays of *250* sheets each
      Location: **Against** the north **wall of** the Personnel Department next
              to the entry.

This will allow the use of **graphics** and varying fonts, which is a requirement of Personnel staff, and the efficient use of multiple paper sizes. The current IBM 5219 cannot do graphics or **varying** fonts.

D - Printer Sharing

The Personnel Department has stipulated independence from the AS/400 as a requirement. A printer sharing device is therefore recommended.

The equipment recommended to implement independent printer sharing is the Digital Products, Inc. PrintDirector Silver Model PDS6SP configured as follows:

6 Ports (4 Serial, 2 Parallel)
1 MB of RAM

The recommended printer sharing device was comparison tested by PC Magazine in the April 30, 1991, issue and was the unit of choice. It was selected by PC Magazine and subsequently recommended by MORADA Corporation because of it's superior performance and easy installation.

Additional cabling of each PC to the device and also from the device to the printer is required. Although the figure presented is very close to the actual cost expected, the cabling lengths must be accurately determined before precise costs can be presented. City staff is best prepared to make this determination.

Finance Department Option

The recommendations for the Finance Department are based upon the assumption that the AS/400 and it's PC Support product will be available whenever someone wishes to use the PC and a Laser Jet printer. Should it be determined that this is impractical or inconvenient, or PC use of the Laser Jet printers by all PCs is wanted independently of the AS/400, an alternative recommendation is the use of a printer **sharing** device which will handle all **printer** sharing duties.

The printer sharing device is in addition to the basic recommendation **and** does not impact the **PC** hardware configurations as presented. Due to **the** nature of printer sharing devices, it is recommended that only Finance Department staff located upstairs **are** hooked into the printer sharing device.

The printer sharing device would be located **near** the printer in Vicki's office.

Finance Department staff located in the basement will use the AS/400 **Virtual** Printer capability and the relocated **IBM** 5219 printer, **or** the **IBM** ProPrinter currently used by Vicki. The 5219 reflects old technology and is limited to text only. They will not be part of the upstairs printer sharing loop.

The equipment recommended to implement independent printer sharing is the **Digital Products,** Inc. PrintDirector Silver Model PDS10SP configured as **follows:**

> 10 Ports (*6* Serial, **4** Parallel)
> 2 **MB of** RAM

The recommended printer sharing device was comparison **tested** by PC Magazine in the April 30, 1991, issue and was the **unit** of choice. **It was selected** by PC Magazine and **subsequently** recommended by **MORADA** Corporation because of it's superior performance and *easy* installation.

Before selecting this alternative, the City must be aware that it *requires* cabling of each PC to the **device** and **also** from the device to the printers. If this alternative is **selected,** the cabling lengths must be determined before actual *costs* can be presented. City staff is best prepared to **make** this determination.

Installation and Training

In MORADA Corporation's original proposal a specific cost was presented for configuration and installation of the PCs, printers, software, and the printer sharing device if that option was selected. Due to the increased number of PCs being recommended, the installation and configuration proposal is changed to $350 per PC, with a minimum of $1,750.

In addition, the initial training proposed is also broken down to a per PC cost of $95, with a minimum of $475.

Initial training is defined as working with each new user individually to demonstrate using the PC word processing and spreadsheet applications, how to control the printers, how to route print out output to the appropriate printer, and how to move between normal AS/400 operations and PC operations.

Additional in depth training or long term support is available.

Comments

MORADA Corporation has diligently pursued **and** presented what we consider is the best alternative for the City **based** upon the requirements presented. The following comments are intended to put the **recommendations in** perspective within the reality **of** today's **computing** environment.

1   Use **of a PC and** emulation to the AS/400 occasionally presents some limitations relative to function. This can present a problem with some applications on the AS/400, specifically OfficeVision word processing.

   It has been determined that the use of these functions is infrequent **and** therefore does not constitute a serious problem. It is recommended **that** in **those** instances when AS/400 OfficeVision functions are not available through the emulation software, the operator move to a normal **AS/400** CRT for that particular job.

2 - PCs offer tremendous power and flexibility **at** exceptionally low cost. However, the very factors that make this power possible can also present occasional incompatibilities between systems **and** application software. Although **MORADA** Corporation has tested many of the potential variables and is basing it's recommendations upon those **tests and** past experience, releases of new **versions of** software can present new issues.

   The City must be aware that such **incompatibilities** do from time to time occur, and that future changes of hardware or software configuration may be warranted.

-   Security of **PC** information will be the responsibility of each **PC** user. Security of the AS/400 database will continue to be the responsibility of the Data Processing Department as it is currently. Whenever a staff **member wishes** to download data from the AS/400 for use in the PC, special care must be used.

   PC users must **keep** the Data Processing Department informed of their intentions to **work** with the AS/400 database. **Uploading of** data from the PCs except as is normally done **through** the AS/400 application software must be avoided totally. All users of the system **MUST** be made cognizant of the potential for problems should this occur. This is critical to maintaining the integrity of the data base.

Cost Estimate Summary

The cost estimates presented here are not meant for budgeting purposes since the City will be purchasing through their own Purchasing Department. Instead, they are meant to provide the City with a means of determining relative value of the item being chosen, and a rough idea of expected cost. For example, some vendors may be willing to negotiate volume discounts for the software being purchased, discounts which the MORADA Corporation cannot determine.

The estimates presented do not include sales tax or installation.

Finance Department - PCs and Printers

1	PC 486-33 MHZ 64 K cache	$ 2,500
6	PC 386SX-25 MHZ (@ $1,463)	8,778
7	Emulation cards (1 @ $199, 6 @ $299)	1,993
1	Emulation card for PS/2 Model 55SX (IBM)	470
1	2 MB of additional memory for PS/2 Model 55SX	400
1	IBM DOS 5.0 upgrade for PS/2 Model 55SX	150
8	WordPerfect 5.1 (@ $239)	1,912
7	Lotus 1-2-3 Version 2.3 (@$ 325)	2,275
1	Lotus 1-2-3, Upgrade from 2.0 to 2.3 (Vicki's PS/2)	119
1	HP Laser Jet III	1,600
1	HP Laser Jet IIID	2,500
Total		$22,697

Personnel Department - PCs and Printers

2	PC 386SX-25 MHZ (@ $1,463)	$ 2,926
1	PC 386SX-16 MHZ	1,289
3	Emulation cards (@ $299)	897
3	WordPerfect 5.1 (@ $239)	717
2	Lotus 1-2-3 Version 2.3 (@ $325)	650
1	HP Laser Jet IIID	2,500
1	Printer Sharing Device	800
	Cabling	200
Total		$ 9,979

Finance Department **Option**

1	Printer **Sharing** Device	$ 1,295
	Cabling	1,000
Total		$ 2,295

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RESOLUTION NO. 91-219
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A RESOLUTION OF **THE** LODI CITY COUNCIL
APPROVING SOLE SOURCE PURCHASE OF COMPUTER
WORKSTATIONS AND SOFTWARE FOR THE LODI FINANCE AND PERSONNEL DEPARTMENTS

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WHEREAS, Lodi Municipal Code, Section 3.20.070, authorizes dispensing with bidding procedures for purchases of supplies or property when the City Council determines that the purchase or method of purchase would be in the best interests of the City;

NOW, THEREFORE, BE IT RESOLVED, that the todi City Council hereby approves the sole source purchase of personal computers and software for the Finance and Personnel Departments from the firm of HIQ of Sunnyvale, California, with a service outlet in Stockton, California. This firm is recommended by the City's contracted consultant, Morada Corporation of Lodi, based on HIQ's price and ability to service their equipment locally. Said purchase cost shall not exceed $26,500, and shall be funded with savings from the hiring freeze in the Finance Department

Dated: December 4, 1991

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I hereby certify that Resolution No. 91-219 was passed and adopted by the Lodi City Council in a regular meeting held December 4, 1991 by the following vote:

Ayes: Council Members - Hinchman, Pennino, Sieglock, Snider and
                              Pinkerton (Mayor)

Noes: Council Members - None

Absent: Council Members - None

Alice M. Reimche
Alice M. Reimche
City Clerk

91-219

RES91219/TXTA.01V